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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,334	07/18/2003	Wendell Watkins		2510

7590 01/10/2006

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EXAMINER
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CATTUNGAL, SANJAY

ART UNIT	PAPER NUMBER
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3735

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/621,334		WATKINS, WENDELL	
	<b>Examiner</b>		<b>Art Unit</b>	
	Sanjay Cattungal		3735	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____  | 6) <input type="checkbox"/> Other: ____                                     |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 07/18/2003 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because copies of Foreign Patent and Non Patent Literature were not submitted. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a). The rest of the IDS involving US Patents have been considered.

### ***Claim Objections***

2. Claim 2 objected to because of the following informalities: "foveate" is spelled as "foveat" . Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

a. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 5, 12, 14, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention. Claim 5 does not explain properly what the limitations are and how sound, touch or smell would be used to in the current invention. Claim 12 does not explain what varying noise means, it is not clear if the inventor means, noise as in sound or electrical noise. Claim 14 discloses about introducing variations but does not specify what the variations are. Claim 17 discloses calibrating attentive vision, but it is not clear how the calibration will be done.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 3, 4, 6, 7, 15, 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galanter et al. (US Patent no. 5,363,154) in view of Ghahramani (US Patent no. 6,517,204). Galanter (claim1) discloses a vision training method, which displays two objects (patterns) on a background using a computer screen to the subject (patient) and can produce motion, depth and color cues. Galanter discloses that the training method displays two objects on a computer screen and that they are capable of producing motion cues. From (Fig 27 a and b) it is clear that the two objects are beyond the horizontal angular extent, an individual is able to foveate, using attentive vision. It is also inherent that the horizontal angular extent is around 2 degrees of the entire width field viewed by an individual. Galanter (column 9 Line 57) discloses that the training

method displays two objects on a computer screen and that they are capable of producing depth cues. The system is set up for a wide range of depth cues and hence it will cover the pre-attentive depth perception limit. It is also inherent that the pre-attentive depth perception limit is around 3 arcmin. Galanter does not teach us about a three dimensional environment. Ghahramani (Abstract Line 1) teaches us that training and testing eyes has been done using a computer monitor to simulate a 3D environment. Hence it would have been obvious to one skilled in the art at the time of invention to modify Galanter and add a three-dimensional viewing space as taught by Ghahramani. The world is a three-dimensional space and eyes perform in a three-dimensional space hence it would have been obvious to test and train vision in a three-dimensional space. Reading is a very important function of our eyes and vision training devices have been used to train for reading for many years, hence it would be obvious to use this device to train individuals to utilize pre attentive vision in reading. Vision training devices have also been used to treat dyslexia for many years hence it would have been further obvious to use a visual training system discussed above to be used to treat dyslexia.

7. Claims 8, 9, 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galanter et al. as applied to claims 2 and 4 above, and further in view of Lawton (US Patent no. 6,213,956). Galanter discloses all of the claim limitation but does not expressly disclose a method for varying textural contrast between first and second object and varying textural spatial frequency. Galanter also teaches us about using color cues. Lawton (Abstract Line 4) teaches us about using contrast and spatial frequency in his apparatus used for visual training. Lawton (Column 3 Line 4) teaches us about a

background with a test pattern and contrast and spatial frequency. Lawton (Column 3 Line 10-13) teaches us that in his invention the contrast of the test pattern, the spatial frequency of the background, or the spatial frequency of the test pattern is modified, either by increasing or decreasing its respective value. Lawton (Column 15 Line 30-40) teaches us about using contrast for testing, in the example, Lawton increases and decreases contrast in small increments and tests the subject for accuracy. Lawton (Column 3 Line 20) teaches us that contrast sensitivity is a method to diagnose and treat dyslexia. Hence it would have been obvious to one skilled in the art at the time of invention to modify Galanter to use spatial frequency and textural contrast as Lawton had stated contrast sensitivity and spatial frequency is a method to diagnose and treat dyslexia.

8. Claims 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lawton as applied to claim 8 above, and further in view of Schutz (US Patent no. 5,594,841). Lawton discloses the above limitation but does not teach about varying edge fidelity or having different orientation for similar shaped objects. Schutz (Column 21 Last paragraph) teaches us about varying edge fidelity. Schutz (Figure 12) teaches us how he uses heart shaped image in many different orientations. Hence it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lawton to add varying edge fidelity and have many different orientations with similar images, since adding edge fidelity and various orientation of images adds more variables to the system and is a better approximation of the real world in which our eyes

have to focus. Hence the result would be a training system that resembles the environment as close as possible.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanjay Cattungal whose telephone number is (571)272-1306. The examiner can normally be reached on 10:30 - 5:00pm Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ali Imam can be reached on (571) 272-4737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SPC

  
**ALI IMAM**  
**PRIMARY EXAMINER**